On June 24 she was unable to void urine, and required catheterization. The family was opposed to further surgery, so it was decided to try x-ray treatment; although in literature I could find record of only one case having been treated with x-rays. That case was reported by Dr. Edw. A. Bjorkenheim in *Acta Obstetricia et Gynecologica Scandinavica*, and then the x-ray treatments proved of no value. The patient was turned over to a competent roentgenologist on July 1, and at that time treatments were started.

On July 16 she was again operated upon, through a midline incision, under gas and ether anesthesia.

Upon entering the abdomen, three distinct and separate tumors were found. The one previously felt in the left lower quadrant was an omental implant, the size of two fists—glistening, grayish white in color, smooth and almost solid, but with some cystic points that bulged slightly. The next was retroperitoneal, laying slightly more to the right of midline, at the level of umbilicus, and adherent firmly to several loops of intestine. This one had several areas, rather darkly pigmented, and more cystic in character. The third one was wedged tightly in the pelvis, and extended up into the abdomen, more on the left.

Complete removal was impossible, so the omental transplant was removed for specimen, and the abdomen closed without drainage, extra stay sutures being used in anticipation of abdominal distention. The girl, however, made an uneventful recovery, and healed nicely.

Treatments by x-ray were again advised as a last resort, and the patient was once more referred to the roentgenologist.

The patient was not seen again until July 25, 1932, when the size of abdomen having decreased perceptibly, and her health having improved, she was able to return to school. She began to menstruate in November, 1931, and menstruated regularly for three months, and then skipped until May, 1932. When seen on July 25, 1932, she was complaining of pain in the right side, and examination showed the abdomen greatly distended by a huge lobulated tumor mass. The skin was tight and showed numerous striae, she was markedly anemic, and sick-looking.

By August 15, 1932, the pain was so severe and cramps in the right leg so intense, as to require morphin for relief. Her condition grew rapidly worse, until she expired at 6 p. m. on August 21, 1932.

Postmortem.—The parents would consent only to opening of the abdomen. Extremely emaciated young woman, with abdomen distended far beyond size of a full-term pregnancy. Frame appeared as a skeleton, with but slight covering. Abdomen was opened from xiphoid to symphysis, and the abdomen was filled by the two tumor masses described at the second operation. The intestines were all displaced to the flanks, and the omentum was contracted high, and was a contracted lace work of small, pearl-gray tumors, varying in size from pin point to a marble, most of them being about the size of a grain of wheat and up to that of a pea. The parietal peritoneum was studded by myriads of growths of the same character, so close together that there was not room to place a finger tip without touching one of these growths. The liver was filled with growths, the largest of which was the size of a walnut. The intestines were covered with similar implantations, but smaller, and the mesentery was filled with somewhat larger ones. Upon removing a part of the diaphragm, which was also involved, it was found that some of the growths had penetrated into the chest cavity to involve the pleura, and that the mediastinum was filled with the growths.

COMMENT

The two main growths were removed for study, and are shown in the accompanying figures, as were also portions of other organs which were removed for sections.

Their size is indicated by the yardstick, and they were both solid, grayish white in color, nodular in part, and covered with adhesions of surrounding viscera. A gross photograph of one of these tumors sectioned is shown. The microscopic sections show a rather uniform type of growth, that is, an adenocarcinoma; but this is not unusual, and is explained on the basis of carcinomatous change in certain of the epithelial elements of the teratoma, with subsequent metastases (which may also occur in the dermoid cyst). McCallum states, "While it is true that the teratoma itself is benign, it is not at all uncommon to find the development of a distinct carcinoma at some point in its epithelium, exactly as we find it in the body in general."

SUMMARY

1. A comprehensive classification of teratomata should be adopted.

2. The cystic and solid types have a common origin, and vary only in age of cells.

3. The prognosis in case of solid teratoma is grave; in case of cystic teratoma, or dermoid, the course is usually benign.

4. The cystic type is very common, while the solid type is extremely rare.

5. The histogenesis of ovarian teratomata is not yet satisfactorily explained by either the blastomere theory of Marchand and Bonnett, or the germ cell theory of Wilms.

6. The treatment in case of solid teratomata should be radical and with care.

Medical Building.

A SIMPLE DEVICE FOR USE IN THYROID SURGERY

By GEORGE A. JOHNSTONE, M. D.
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THE usual method of placing a patient upon the operating table for a thyroidectomy has a number of disadvantages both to the patient and the surgeon, as well as to the surgeon's assistants. For example, it is always desirable that the surgeon, when doing a thyroidectomy, should have as much exposure of the thyroid as possible by placing the patient in a position which will throw the thyroid closer to the surface of the neck. The usual method employed for obtaining this position is that of placing a sand-bag posteriorly to the cervical and upper thoracic regions of the patient; but while the purpose of this is to elevate the cervical and upper thoracic regions, it has proven very inefficient in several respects. The hardness and inflexibility of the sand-bag cause much distress to the patient. There is no way of adjusting the position of the patient for the convenience of the surgeon in opening and closing the wound without causing additional discomfort to the patient; and, furthermore, it is not possible to raise and lower that portion of the body involving surgery so as to give the correct elevation necessary to the most efficient work of the surgeon.

A sheet suspended by a frame for the purpose of separating the anesthetist's field from the field

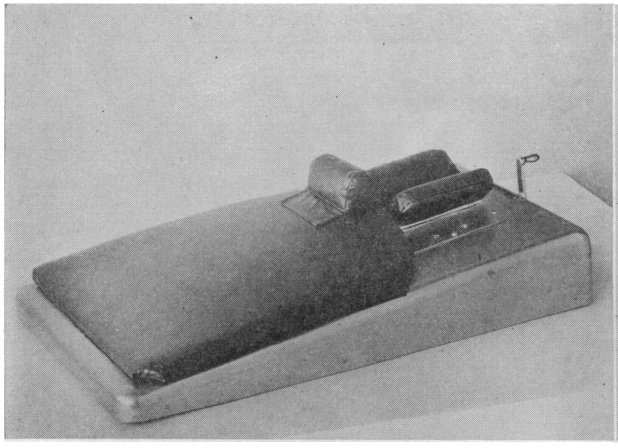

Fig. 1.—Showing operating table devised for use in thyroid surgery.

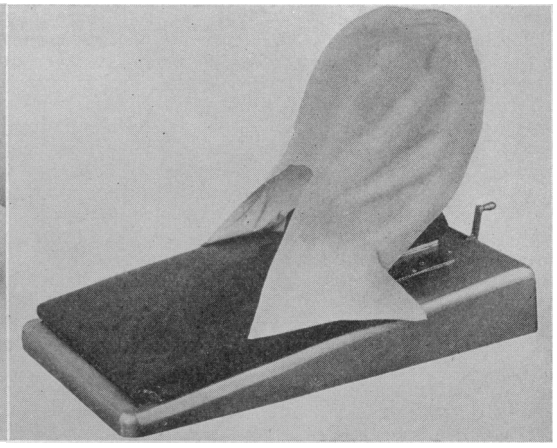

Fig. 2.—Showing use of the hood.

of surgery serves as a great handicap to the surgeon, since it is in the way of his elbow when he wishes to work from certain positions. It also limits the room of the assistants for their work.

ADVANTAGES OF THE TABLE

A device which will eliminate or minimize the discomfort to the patient, and give the surgeon and his assistants every possible advantage in doing a thyroidectomy, has been developed by the author, who suggests the following as chief advantages of his device:

Conformity to Shape of Patient.—First, it is constructed so that it will conform to the shape of each individual patient, regardless of size or form. The adjustable part is made of material which gives comfort, and yet is firm enough to keep the patient in a stable position.

Correct Elevation of Thyroid. — Second, the back rest can be mechanically raised or lowered by the simple turn of a crank (located at the head of the device) without any discomfort or inconvenience to the patient, thus making it possible to get a correct elevation of the upper thoracic and cervical region for each step of the operation. For example, when it is desired to throw the thyroid close to the surface of the neck, this can be done by raising the back rest. This rest is arranged so that the center is elevated, leaving the sides sloped for the dropping of the patient's shoulders, and the elevation of the part to be operated upon. Then, when relaxation of the tissues and muscles is required for suturing, the back rest can easily be lowered to the point where the most suitable position is desired.

Special Hood.—Third, a specially designed hood and frame make it possible for the surgeon and his assistants to work freely; for since the hood is shaped to fit over the head of the patient, the surgeon and his assistants are not hampered by the obstruction of a partition which would be in the way of their elbows while operating, and yet is sufficiently large to give ample room for the administration of an anesthetic. Because of the roominess of the hood, the patient has a feeling of perfect freedom in breathing; and this is a great advantage where only local anesthesia is employed. The hood is especially designed to fit snugly under the chin and down the sides of the neck, with a skirt on each side sufficiently large to tuck under the patient's shoulders, thus giving a neat arrangement for keeping the field of operation absolutely sterile. It can be placed in the sterilizer without injury to the fabric, and will retain its original shape after sterilization.

Adjustability of the Head Rest.—Fourth, an adjustable head rest gives a comfortable position for a patient of any size, and assists in obtaining the desired position of the thyroid.

Adaptability to Any Operating Table.—Fifth, this device can be used on any type of operating table, simply by placing it in the correct position.

The base and hood frames are made of metal, attractively nickle-plated; and the back and head rests are neatly upholstered with a good quality of fabrikoid.

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TREATMENT OF DIABETES INSIPIDUS

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VARIOUS theories have been suggested concerning the relation between the posterior pituitary lobe and water elimination. Published experimental findings indicate that the decrease in water elimination produced by injections of posterior pituitary extract is based either upon decreased filtration through the glomeruli or by increase of urine resorption in the tubules. While other authors have shown the latter to be true, Poulsson [1] has demonstrated experimentally that decreased diuresis is to be attributed to increased back-diffusion of urea into the renal tubules. This, he contends, explains the fact that urea concentration in the urine is below that normally expected according to decreased flow of urine. Pellegrini,[2] however, believes that in some cases of diabetes insipidus the capacity of the kidneys to furnish a concentrated urine is diminished,